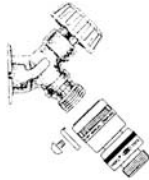

Common Questions

1. What is the most common type of cross connection found?

The garden hose is the most common cross connection. When used for cleaning drains or applying landscape chemicals, connected to pressure washers, or just left lying where drainage accumulates, garden hoses create cross connections. ***A hose connection backflow preventer can protect your home water supply from this potential hazard.***



2. Why do I have to install a backflow prevention assembly?

To protect the customers of public water providers, the Environmental Protection Agency Safe Drinking Water Act, Oregon Department of Human Services, and Uniform Plumbing Code each require customers to equip all cross connections with a backflow prevention assembly. Therefore, the City of Tigard has adopted codes that regulate cross connections.

3. Why do I have to install a backflow assembly on my lawn sprinkler system?

A lawn sprinkler system is considered non-potable water use and requires protection from backflow. The water in these systems can become contaminated by lawn chemicals, animal waste, or the water can become stagnant. Also, water which is contaminated with toxic substances or pathogenic organisms can be backsiphoned through a leaky valve and endanger the health of a household, neighborhood, or entire community.

4. Does my backflow assembly need to be tested?

Yes. The Oregon Department of Human Services requires that *all backflow assemblies be tested once each year by a certified tester*. Backflow assembly testers are private contractors and can be found in the phone directory. The City of Tigard maintains a list of testers which is available upon request.

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Cross Connection *and* Backflow Prevention



Safe, Clean Drinking Water is Life

What is backflow?

Water systems depend on water pressure to keep water flowing in the proper direction through the pipes. However, anything that causes a drop in water pressure can create a reverse flow, from the customer's plumbing system back into the public water system.

This is called backflow. Backflow can also occur when the customer's water system has a higher pressure than the public water system.

The drinking water system can become unsafe whenever backflow occurs and the plumbing system comes in contact with harmful or objectionable substances. Such "cross connections" are created by people unaware of the potential for backflow.

Some hazards of such connections can be:

- contaminated water and food products
- disabling illness
- in some extreme cases, death!

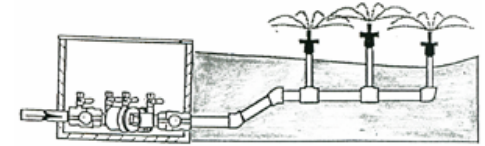
Where are cross connections found?

Whenever a plumbing fixture is connected to the drinking water supply, a potential cross connection exists. Fortunately, many of the plumbing fixtures have built-in backflow protection. Examples of cross connection that can lead to backflow are:

1. Wash basins and service sinks
2. Hose bibs
3. Irrigation or lawn sprinkler systems
4. Swimming pools and spas
5. Solar heat systems
6. Fire sprinkler systems
7. Auxiliary water supplies (wells)
8. Photo developing equipment
9. Laboratory equipment
10. Attachment to hoses to apply weed killer or fertilizer or to flush anti freeze
11. Food and beverage processing equipment
12. Boilers
13. Chemical feed equipment
14. Ornamental fountains

How can backflow be prevented?

The City of Tigard has a cross connection control program as required by the Oregon Department of Human Services Drinking Water Program. This program is a combined effort between our plumbing inspectors and our cross connection inspector. It includes the elimination or protection of all cross connections by approved methods or approved equipment called backflow prevention assemblies. The different types of methods or backflow prevention assemblies used are based on what is known as the degree of hazard.



The City of Tigard works hard to supply customers with safe, clean drinking water. With an understanding of the hazards associated with cross-connections and backflow, **you can help** us protect our drinking water.

INCIDENTS – DO THEY REALLY HAPPEN?

Yes! Here are four examples:

- A water line was accidentally cut and water pressure dropped while a farmer was diluting herbicides in a tank. Pesticides were backsiphoned into the water system through the garden hose connection. *(Louisiana-1995)*
- Backflow from an irrigation hose resulted in insect larvae entering a food processing vat. *(Oregon - 1982)*
- Defective operating valves on a lawn sprinkler allowed surface water to be siphoned into the water distribution system resulting in bacteriological contamination. *(California - 1986)*
- Backflow of water from an auxiliary well source into the public water system. Affected 85 people. *(Washington - 1990)*